

Application Number: 10/062,990

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REMARKS

Upon entry of this Response, claims 1-8, 10-20, 22-31, and 33-44 remain pending in the present patent application. Claims 1-3, 7-8, 10, 12, 15-16, 22, 23, 25-26, 33, 34, 35, 40, and 43 have been amended, and claims 9, 21, and 32 have been canceled herein. Applicants respectfully request reconsideration of the pending claims in view of the following remarks.

In item 1 of the Office Action, it is alleged that the title of the invention is not descriptive and a requirement for a new title is set forth. In this respect, the Office Action suggests the title "Evaluation of Resource Requirements for Image Processing Operations in an Image Scanner." Applicants respectfully disagree. In this respect, image processing operations are evaluated so that information may be presented to a user that allows a user to decide whether they wish to move forward with a damage processing operation itself. The specification specifically delineates that the image processing operations themselves may involve scanning, copying, or printing. Thus, Applicants assert that the title "Evaluation of Image Processing Operations" is quite accurate. In addition, the suggested title that restricts the operation of the invention to an image scanner would present a title that is much narrower than the scope of the claims. In addition, resource requirements for image processing operations are not evaluated as much as the ultimate characteristics as indicated by specific parameters of the pending image processing operation itself are evaluated. Therefore, Applicants respectfully request that the requirement that the title be amended be withdrawn.

Next, in item 2 of the Office Action, the specification of the disclosures objected to as it is alleged that there is a confusing use of the term "parameters." In this respect, the Office Action states as follows:

"The specification of the disclosure is objected to because of the somewhat confusing use of the term "parameters." Parameters are generally defined as input values used by a mathematical a set of rules or formulas to calculate output values. The invention, as the examiner understands, utilizes the settings as input values to calculate performance e valuations as output values. Thus, the settings are the parameters of the function. The application, however, confusingly includes both settings and parameters, wherein the parameters are the output values calculated. Examiner respectfully suggests changing the term "parameters" to "output values" and changing the user settable values of the output values (i.e.,

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maximum estimated scan time, maximum RAM usage, and maximum HDD usage) as "constraints" for the sake of clarity. Another possible suggestion is to label the "settings" as parameters while specifying input or output (monitor) parameters, as shown in the Wu reference." (Office Action, page 2.)

Applicants respectfully assert that the specification is quite clear on the point as to what are "parameters" and what are "settings." Indeed, the specification goes so far as to provide specific examples of settings and specific examples of image processing parameters. In this respect, the image processing parameters comprise variables that describe characteristics of an image processing operation as set forth in the specification. In addition, the specification takes great care to separate the concept of "settings" from "parameters" and is consistent throughout both the specification and the claims. Applicants respectfully assert that one skilled in the art will appreciate upon reading the specification, the difference between the "settings" and "image processing parameters" of the present application. In fact, it appears that the prior art references exhibit such confusion—not the present application. Therefore, Applicants respectfully request that the objection to the specification in this respect be withdrawn.

In addition, claims 1, 12, 23, 34, 36, 40, and 43 have been objected to as it is alleged that:

"all the claims recite the limitation "a number of image processing parameters" or a "number of image processing settings." The examiner feels that this language, particularly as used in claims 1, 40, and 43, could possibly be misconstrued by a reader to mean that the method predicts the number of output parameters associated with a given task, i.e., depending on the settings, the number of output variables changes. Appropriate correction is required." (Office Action pages 2-3.)

Applicants note that the "number of" language in all of the claims with respect to the image processing parameters have been changed to reflect "at least one image processing parameter." Applicants assert that this addresses the informality noted above. Accordingly, Applicants request that the objection to the respective claims be withdrawn.

In item 5 of the Office Action, claims 14 and 27 have been rejected under 35 U.S.C. §112 as it is alleged in claims 14 and 27 with the limitation "computer system" lacks antecedent basis. Claim 14 depends from claim 12, and claim 27 depends from

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claim 23. Both claims 12 and 23 introduce "a computer system", thereby providing antecedent basis for the use of the terms "computer system" in dependent claims 14 and 27. Therefore, Applicants respectfully request that the rejection of claims 14 and 27 in this regard be withdrawn.

Next, in item 7 of the Office Action, claims 1-19, 21-30, and 32-34 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,687,527 issued to Wu (hereafter "*Wu*"). Anticipation under §102 "requires the disclosure in a single prior art reference of each element of the claim under construction. W.L. Gore & Associates, Inc. v. Garlock, Inc., 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). As an initial matter, Applicants note that claims 9, 21, and 32 have been canceled herein, thereby rendering this rejection moot with respect to such claims. In view of the amendments offered herein, Applicants respectfully request that the rejection of claims 1-8, 10-19, 22-30, and 33-34 be withdrawn.

To begin, claim 1 has been amended to recite as follows:

1. An image processing evaluation method, comprising:
 - forecasting at least one image processing parameter of an image processing operation based upon at least one image processing setting, the image processing operation comprising one of an optical scanning of an image from a print medium, a copying of the image disposed on the print medium, or a printing of the image on the print medium;
 - displaying the at least one image processing parameter on a display device;
 - altering the at least one image processing setting based upon a user setting input;
 - re-forecasting the at least one image processing parameter based upon the at least one image processing setting altered by the user setting input; and
 - performing a preoperative task based upon a user input in response to the display of the at least one image processing parameter.

As set forth above, the image processing operation is one of an optical scanning of an image from a print medium, a copying of the image disposed on the print medium, or a printing of the image on the print medium. *Wu* describes the operation of a magnetic resonance imaging system. As such, there is no optical scanning described by *Wu* since *Wu* employs magnetic resonance imaging. Also, *Wu* does not describe copying an image disposed on a print medium or printing an image on a print medium.

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Accordingly, Applicants request that the rejection of claim 1 be withdrawn. In addition, Applicants request that the rejection of claims 2-8 and 10-11 be withdrawn as depending from claim 1. In addition, claims 12, 23, and 34 have been amended to incorporate subject matter similar in scope with that of claim 1 above. Accordingly, Applicants respectfully request that the rejection of claims 12, 23, and 34 be withdrawn for the same reasons described above with respect to claim 1. In addition, Applicants respectfully request that the rejection of claims 13-19, 22, 24-30, and 33 be withdrawn as depending from claims 12 or 23.

Next, in item 10 of the Office Action, claims 20, 31, and 35-44 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Wu* in view of U.S. Patent 6,850,653 issued to Abe (hereafter "*Abe*"). A prima facie case of obviousness is established only when the prior art teaches or suggests all of the elements of the claims. MPEP §2143.03, In re Rijckaert, 9 F.3d 1531, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). For the reasons that follow Applicants respectfully request that the rejection of claims 20, 31, and 35-44 be withdrawn.

To begin, claim 20 recites as follows:

20. The image processing evaluation program embodied in the computer readable medium of claim 12, wherein the code that evaluates the effectiveness of the anticipated execution of the image processing operation in the computer system further comprises code that estimates a minimum amount of at least one type of memory that is necessary to perform the image processing operation.

Claim 20 recites code that evaluates the effectiveness of the anticipated execution of the image processing operation in the computer system by using code that estimates a minimum amount of one type of memory that is necessary to perform the image processing operation. With respect to the above elements, the Office Action states as follows:

"Wu's invention meets the requirements of claims 12 and 23, upon which claims 20 and 31 respectively depend. Wu does not expressly disclose "estimate[ing] a minimum amount of at least one type of memory that is necessary to perform the image processing operation" as one of his monitor/output parameters.

Abe discloses a method of scanning an image in column 7, lines 38-41, wherein "when scanning is started by clicking the operation button 29 (step S1201), an error flag and warning flag are cleared (step

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S1216), and an available memory area check is made (step S1202)." Abe further describes this memory check in column 8, lines 15-25, stating, "FIG. 13 is a flow chart showing the processing in the available memory area check in step S1202 in FIG 12... When the operation 29 is clicked during the stand by state of the scanner 5 to start scanning, and an available memory area check is started (step S1301), a check is made (S1302) on available capacity of data storage area of memory (RAM) 11)>(necessary memory capacity+1)[MB]." Additionally, Abe's invention modifies scan settings to lower resolution, size, or color depth when there is insufficient memory to store the scanned image." (Office Action, page 11).

Applicants respectfully disagree. Specifically, Abe discusses performing of an "available memory area check" in order to determine an available amount of memory that may be employed for a given operation. Specifically, in column 7, lines 34-48, Abe states as follows:

"FIGS. 12 and 13 are flow charts showing the operation (processing) of this embodiment. The operation will be described with reference to FIGS. 12 and 13. FIG. 12 is a flow chart showing processing after reading operation is started by clicking the operation button 29. When scanning is started by clicking the operation button 29 (step S1201), an error flag and warning flag are cleared (step S1216), and an available memory area check is made (step S1202). If an error is detected by the available memory area check (an error flag is set) (step S1203), the reading processing is stopped, and an error return is executed (step S1211). As described above, if an error is detected by an available memory area check, since scanning cannot be performed, reading operation is forcibly stopped to prevent the OS from malfunctioning."

In addition, at column 8, lines 15-33, Abe states:

"FIG. 13 is a flow chart showing the processing in the available memory area check in step S1202 in FIG. 12. In the following description, processing expressed with the word "virtually" is processing that is not reflected on the main window 24 at that point of time. When the operation button 29 is clicked during the standby state of the scanner 5 to start scanning, and an available memory area check is started (step S1301), a check is made (step S1302) on available capacity of data storage area of memory

(RAM 11)>(necessary memory capacity+1) [MB] (1)

If an available memory area (RAM 11) is ensured, the flow advances to the next step (step S1318). In the right-hand side of inequality (1), (necessary memory capacity+1) is set. This value "1" is a margin, which is

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not used in general. If it is determined in step S1302 that the available memory area (RAM 11) is insufficient, the original size is virtually reduced by one step (in order of A4->A5->A6) in internal processing (step S1303)."

Thus, *Abe* describes determining an available memory area, and not estimating an amount of memory that it would take to perform the imaging processing operation. In this respect, the amount of memory necessary to perform the image processing operation might well be greater than the amount of available memory area. The calculation to determine the amount of memory necessary to perform the operation is entirely different from the operation necessary to determine the available memory. It also allows a user to see what the image processing operation will demand in terms of memory that they can mentally compare with known memory capacity of a device that is to perform the image processing operation.


Accordingly, Applicants respectfully assert that the cited references fail to show or suggest each element of claim 20 as set forth above. In addition, Applicants note that claims 31, 35, and 40 each include elements similar in scope with those of claim 20 above. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn for the same reasons described above with respect to claim 20. In addition, Applicants note that claims 36-39, and 41-44 depend from claims 35 and 40, respectively. Applicants request that the rejection of claims 36-39, and 41-44 be withdrawn as depending from claims 35 and 40, respectively.

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CONCLUSION

It is requested that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding this Response, the Examiner is encouraged to telephone the undersigned counsel of Applicants.

Respectfully submitted, 

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